Dakota STEP

DATa interaction

User guide

eMetric

CONTENTS

1. System Overview

The Dakota STEP Data Interaction system is designed to provide quick, easy and secure access to student performance results on the South Dakota State Test of Educational Progress (Dakota STEP). This system provides a wealth of information in a highly interactive and flexible format.

Users can elect to display the data in tables, graphs or charts as they create custom summary reports and individualized student rosters. Users can completely customize their reports by selecting the specific content, statistics, aggregation levels, disaggregated groups or subgroups, and/or score variables to display on each report. Once created, each report can be conveniently saved or exported for later use and further analysis.

2. Logging Onto the System

Welcome to the eMetric Data Interaction system for the Dakota STEP Test!

The procedure to access the system is outlined below as well as how to avoid a few of the common pitfalls previous users have reported.

2.1. Obtaining a Username and Password

eMetric has provided usernames and passwords to the state and district test coordinators for each district.

- If you are a district level user, please contact Mark Heilmann for login information or to request a password reset
- If you are a school level user, please contact your District Test Coordinator

2.2. Trouble Logging In?

If you encounter difficulty logging onto the Dakota STEP Data Interaction system, please refer to the list below for assistance with commonly reported errors.

2.2.1. Login Issues

Although your username is not case sensitive, your password is so please take care to enter your password using the correct case (upper or lower) for each letter. Oftentimes, the capital letter 'i' and the number one ('1') can look similar. The letter 'O' and the number zero ('0') can look similar as well. Be sure that the 'O' and '0' and the 'i' and '1' are being entered appropriately.

2.2.2. Browser Issues

Browser requirements are described on the login page under the login box. The browser specifications for Dakota STEP Data Interaction are as follows:

- Internet Explorer® 6.0+
- Netscape Navigator® 7.0+

If your computer's browser does not meet these minimum specifications, you may not be able to login to the Data Interaction system. In the event you are able to log in without these browser requirements, the system will promptly exit your user account. You will not be able to access any of the system's functionalities or view any reports.

2.2.3. Technical Support

If problems persist and you are unable to log onto the system, please call our Technical Support Specialist at (210) 496 – 6500 or email us at sdsupport@emetric.net.

2.3. Managing User Accounts

The Dakota STEP Data Interaction system allows users with administrative privileges to manage user accounts. Administrative users can click the Control Panel link on the navigation bar to view user accounts, add user accounts, deactivate user accounts and view user activity (see section 5 for additional detail regarding managing user accounts).

3. Making Selections

Through dynamic selection menus, Dakota STEP Data Interaction enables users to create unique reports which meet their specific needs.

3.1. Main Selections

The Main Selections page is the first page displayed after the Data Privacy Agreement. From this page, the user will select the type of application, year of test administration, grade level, and the state/district/school for which they wish to view results. Below is a description of each of the selections available on this page.

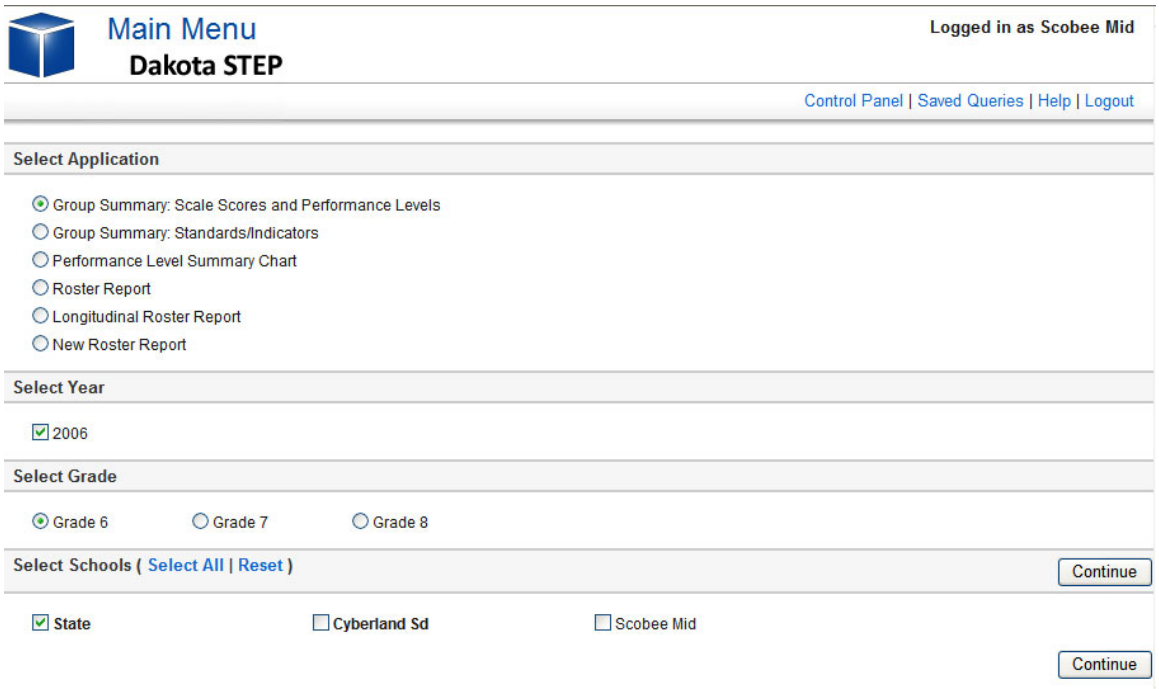

Exhibit 1: Sample Main Selections Page

3.1.1. Select Report

The report selection displays all reports available for the Dakota STEP Data Interaction system.

- Group Summary: Scale Scores and Performance Levels
- Group Summary: Standards/Indicators
- Performance Level Summary Chart
- Roster Report
- New Roster Report (for school level accounts only)

3.1.1.1. Group Summary: Scale Scores and Performance Levels

The Group Summary: Scale Scores and Performance Levels Report presents an overview of students' performance by state, district, school, and selected student subgroups. This report displays the number tested, the average scale score, and the percent in each performance level by content area for multiple years. Within the report window, the user may sort, calculate n counts for performance levels, disaggregate by subgroups and drill down to a roster report of the students for the selected subgroup.

Summary Report
Dakota STEP

Logged in as Scobee Mid
Grade: 06

Main | Back | Save Query | Transpose | Get Text | Help | Logout

Students Selected: All

		Reading						Mathematics					
				% in Each Performance Level						% in Each Performance Level			
Group	Year	Number Tested	Mean Scale Score	Below Basic	Basic	Proficient	Advanced	Number Tested	Mean Scale Score	Below Basic	Basic	Proficient	Advanced
State	2006	10355	669	0.0	18.7	50.7	30.6	10366	682	1.4	29.0	55.8	13.8
Female	2006	4997	671	0.0	16.4	52.1	31.6	5003	682	1.1	28.7	57.3	12.9
Male	2006	5340	667	0.0	20.8	49.4	29.8	5345	683	1.7	29.2	54.5	14.6
Cyberland Sd	2006	383	666	0.0	21.7	52.5	25.8	385	671	1.8	36.4	54.5	7.3
Female	2006	167	669	0.0	19.2	55.1	25.7	168	672	1.8	35.1	56.0	7.1
Male	2006	216	664	0.0	23.6	50.5	25.9	217	670	1.8	37.3	53.5	7.4
Scobee Mid	2006	319	666	0.0	22.6	49.5	27.9	321	671	2.2	36.8	53.9	7.2
Female	2006	138	669	0.0	19.6	51.4	29.0	139	672	2.2	33.8	58.3	5.8
Male	2006	181	664	0.0	24.9	48.1	27.1	182	670	2.2	39.0	50.5	8.2

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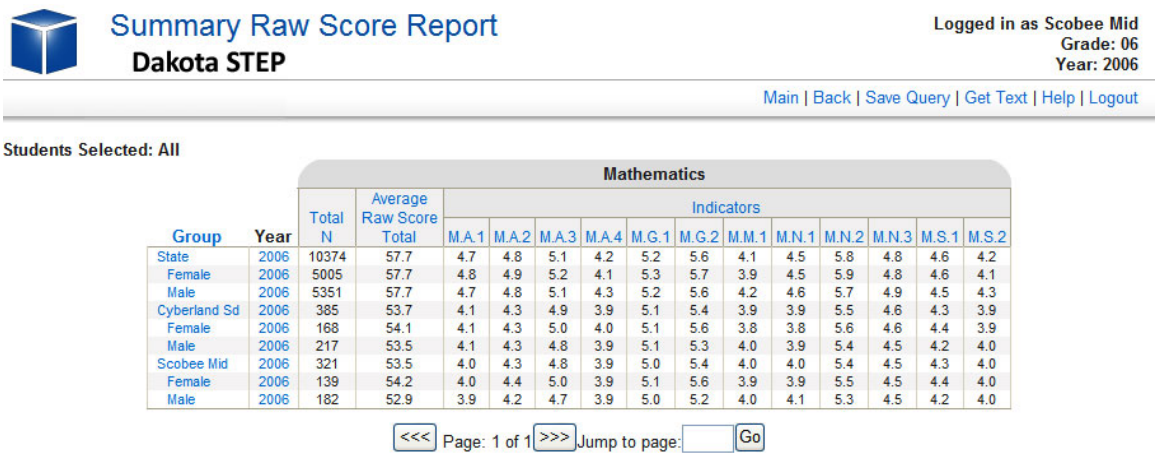
Exhibit 2: Sample Group Summary Report

3.1.1.2. Group Summary: Standards/Indicators

The Group Summary: Standards and Indicators Report presents an overview of student performance by state, district, school, and selected student subgroups. This report displays the total N, average raw score total, and the raw score for each of the reading standards and math indicators. Within the report window, users may sort, calculate percentages, disaggregate by subgroups and drill down to a roster report of the students who comprise the selected subgroup.



Summary Raw Score Report
Dakota STEP

Logged in as Scobee Mid
Grade: 06
Year: 2006

Main | Back | Save Query | Get Text | Help | Logout

Students Selected: All

		Mathematics													
		Total N	Average Raw Score Total	Indicators											
Group	Year			M.A.1	M.A.2	M.A.3	M.A.4	M.G.1	M.G.2	M.M.1	M.N.1	M.N.2	M.N.3	M.S.1	M.S.2
State	2006	10374	57.7	4.7	4.8	5.1	4.2	5.2	5.6	4.1	4.5	5.8	4.8	4.6	4.2
Female	2006	5005	57.7	4.8	4.9	5.2	4.1	5.3	5.7	3.9	4.5	5.9	4.8	4.6	4.1
Male	2006	5351	57.7	4.7	4.8	5.1	4.3	5.2	5.6	4.2	4.6	5.7	4.9	4.5	4.3
Cyberland Sd	2006	385	53.7	4.1	4.3	4.9	3.9	5.1	5.4	3.9	3.9	5.5	4.6	4.3	3.9
Female	2006	168	54.1	4.1	4.3	5.0	4.0	5.1	5.6	3.8	3.8	5.6	4.6	4.4	3.9
Male	2006	217	53.5	4.1	4.3	4.8	3.9	5.1	5.3	4.0	3.9	5.4	4.5	4.2	4.0
Scobee Mid	2006	321	53.5	4.0	4.3	4.8	3.9	5.0	5.4	4.0	4.0	5.4	4.5	4.3	4.0
Female	2006	139	54.2	4.0	4.4	5.0	3.9	5.1	5.6	3.9	3.9	5.5	4.5	4.4	4.0
Male	2006	182	52.9	3.9	4.2	4.7	3.9	5.0	5.2	4.0	4.1	5.3	4.5	4.2	4.0

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Exhibit 3: Sample Group Summary Report

3.1.1.3. Performance Level Summary Chart

The Performance Level Summary Chart presents a synopsis of student results by performance level. This report can be viewed either as a bar chart or histogram at the state, district, school, or by group summaries. Performance level summary charts allow users to drill down to a roster report containing students who performed at a specific performance level.

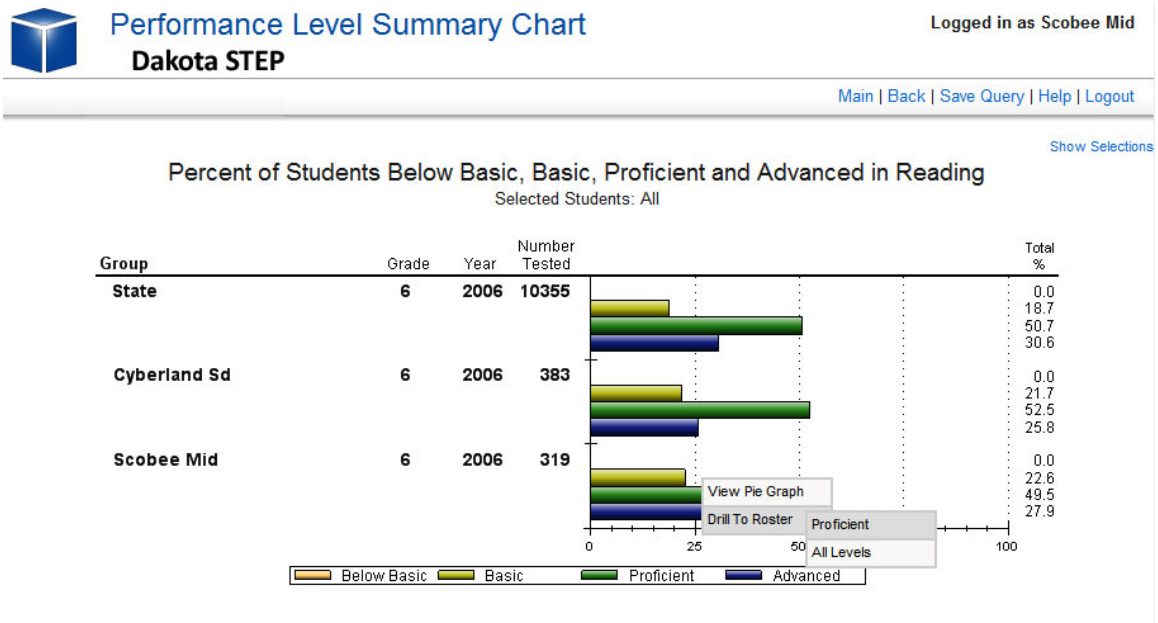
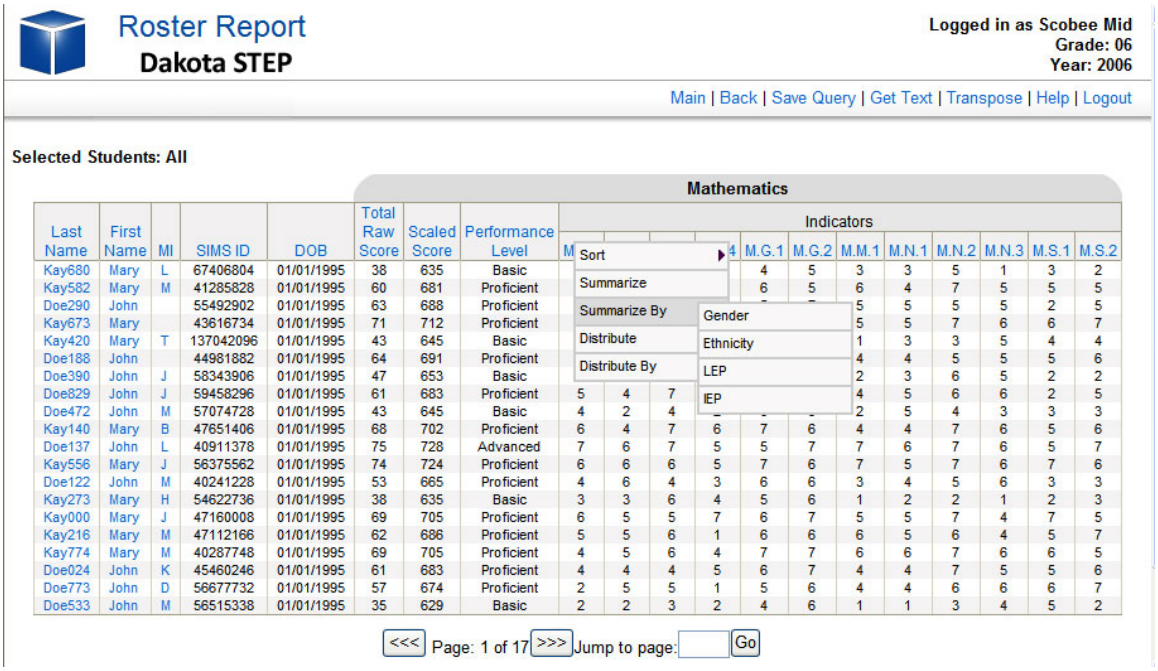


Exhibit 4: Sample Performance Level Summary Report

3.1.1.4. Roster Report

The Roster Report lists individual students with their corresponding scores and additional information as selected by the user including: Student ID, gender, date of birth, etc. Users can

filter the data by search criteria to identify trends and common traits. Within the report window, users will have the ability to sort, summarize and distribute the data in each column.



Roster Report
Dakota STEP

Logged in as Scobee Mid
Grade: 06
Year: 2006

Main | Back | Save Query | Get Text | Transpose | Help | Logout

Selected Students: All

Mathematics

Indicators

Last Name	First Name	MI	SIMS ID	DOB	Total Raw Score	Scaled Score	Performance Level	M				M.G.1	M.G.2	M.M.1	M.N.1	M.N.2	M.N.3	M.S.1	M.S.2
Kay680	Mary	L	67406804	01/01/1995	38	635	Basic					4	5	3	3	5	1	3	2
Kay582	Mary	M	41285828	01/01/1995	60	681	Proficient					6	5	6	4	7	5	5	5
Doe290	John		55492902	01/01/1995	63	688	Proficient							5	5	5	5	2	5
Kay673	Mary		43616734	01/01/1995	71	712	Proficient							5	5	7	6	6	7
Kay420	Mary	T	137042096	01/01/1995	43	645	Basic							1	3	3	5	4	4
Doe188	John		44981882	01/01/1995	64	691	Proficient							4	4	5	5	5	6
Doe390	John	J	58343906	01/01/1995	47	653	Basic							2	3	6	5	2	2
Doe829	John	J	59458296	01/01/1995	61	683	Proficient	5	4	7				4	5	6	6	2	5
Doe472	John	M	57074728	01/01/1995	43	645	Basic	4	2	4				2	5	4	3	3	3
Kay140	Mary	B	47651406	01/01/1995	68	702	Proficient	6	4	7	6	7	6	4	4	7	6	5	6
Doe137	John	L	40911378	01/01/1995	75	728	Advanced	7	6	7	5	5	7	7	6	7	6	5	7
Kay556	Mary	J	56375562	01/01/1995	74	724	Proficient	6	6	6	5	7	6	7	5	7	6	7	6
Doe122	John	M	40241228	01/01/1995	53	665	Proficient	4	6	4	3	6	6	3	4	5	6	3	3
Kay273	Mary	H	54622736	01/01/1995	38	635	Basic	3	3	6	4	5	6	1	2	2	1	2	3
Kay000	Mary	J	47160008	01/01/1995	69	705	Proficient	6	5	5	7	6	7	5	5	7	4	7	5
Kay216	Mary	M	47112166	01/01/1995	62	686	Proficient	5	5	6	1	6	6	6	5	6	4	5	7
Kay774	Mary	M	40287748	01/01/1995	69	705	Proficient	4	5	6	4	7	7	6	6	7	6	6	5
Doe024	John	K	45460246	01/01/1995	61	683	Proficient	4	4	4	5	6	7	4	4	7	5	5	6
Doe773	John	D	56677732	01/01/1995	57	674	Proficient	2	5	5	1	5	6	4	4	6	6	6	7
Doe533	John	M	56515338	01/01/1995	35	629	Basic	2	2	3	2	4	6	1	1	3	4	5	2

Sort
Summarize
Summarize By
Distribute
Distribute By
Gender
Ethnicity
LEP
IEP

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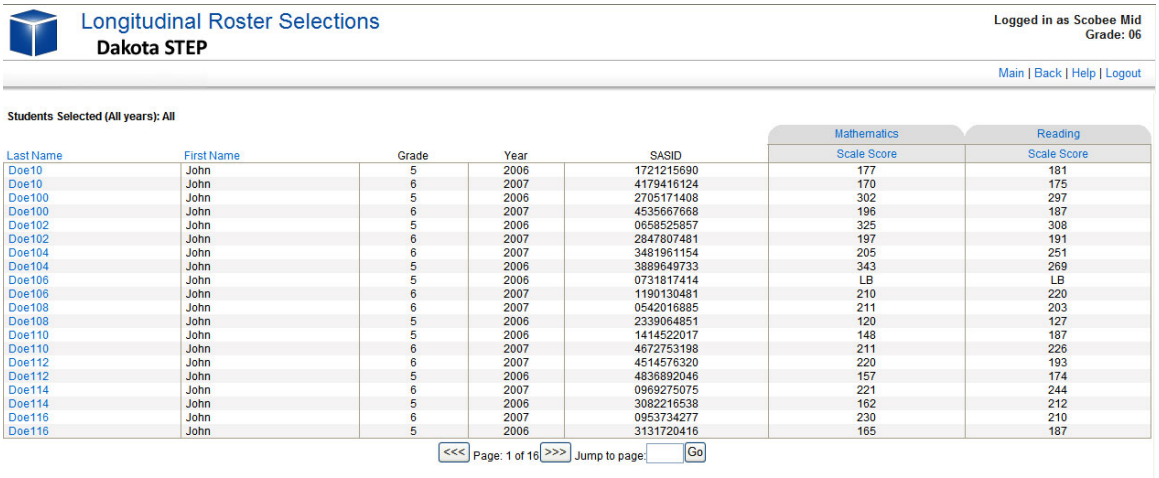
Exhibit 5: Sample Roster Report

3.1.1.5. Longitudinal Roster Report

The Longitudinal Roster report provides a roster list of scores and student data for multiple years. By selecting a year from the main menu, users can generate a roster report that matches a student's current score results with previous grades/years. In addition, the user can produce an Individual Student report for any given year by selecting the student's last name.



Longitudinal Roster Selections
Dakota STEP

Logged in as Scobee Mid
Grade: 06

Main | Back | Help | Logout

Students Selected (All years): All

Last Name	First Name	Grade	Year	SASID	Mathematics Scale Score	Reading Scale Score
Doe10	John	5	2006	1721215690	177	181
Doe10	John	6	2007	4179416124	170	175
Doe100	John	5	2006	2705171408	302	297
Doe100	John	6	2007	4535667668	196	187
Doe102	John	5	2006	0658525857	325	308
Doe102	John	6	2007	2847807481	197	191
Doe104	John	6	2007	3481961154	205	251
Doe104	John	5	2006	3889649733	343	269
Doe106	John	5	2006	0731817414	LB	LB
Doe106	John	6	2007	1190130481	210	220
Doe108	John	6	2007	0542016885	211	203
Doe108	John	5	2006	2339064851	120	127
Doe110	John	5	2006	1414522017	148	187
Doe110	John	6	2007	4672753198	211	226
Doe112	John	6	2007	4514576320	220	193
Doe112	John	5	2006	4836892046	157	174
Doe114	John	6	2007	0969275075	221	244
Doe114	John	5	2006	3082216538	162	212
Doe116	John	6	2007	0953734277	230	210
Doe116	John	5	2006	3131720416	165	187

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Exhibit 6: Sample Longitudinal Roster Report

3.1.1.6. New Roster Report

The New Roster Report provides results from previously administered Dakota STEP assessments to schools for their newly enrolled students originating from various districts and schools. The format of the New Roster Report mirrors the Roster Report and allows users to filter the data by search criteria and to sort, summarize and disaggregate the data in each column as well as filtering students by their feeding district and campus.

3.1.1.6.1. Creating a File to Upload

If a previously uploaded student file does not exist, the New Roster Report will prompt the user to upload a student file. Each school with access to the Dakota STEP New Roster Report must generate a file of their incoming students as either a Microsoft® Excel file, or as a Comma Separated Value (CSV) file. The file should contain one column for each of the following: Student ID/SIMS ID, last name, first name, middle initial and building number (bnum). Both the "Student ID" and "BNUM" fields are required in order to match the students in the Dakota STEP data file.

	A	B	C	D	E
1	SIMSID	Lname	Fname	Mi	Bnum
2	121501443	Fisher	Sierra	M	490050010
3	121501445	Barrington	Jan	K	490050011
4	121501446	Smith	John	R	490050012

Exhibit 7: Sample Student file

3.1.1.6.2. Manage Student List

To manage and upload a student file, select New Roster Report from the list of reports; choose the Dakota STEP Administration year and grade, and then click Continue. At the next prompt, choose Manage Student List from the navigation bar at the top right corner of the page. The next prompt allows the user to upload student data.

To upload the file, click on the Browse button, locate the file on your computer, select the file and click on the Upload button. Every time the student file is uploaded, the previously uploaded file is overwritten.

The status of the uploaded file will be displayed on the screen. If there was a problem with the file, check to make sure that the file was created based on the layout format provided above. If the file uploaded without error, the system redirects users to the New Roster Report selection page. A roster report containing the list of uploaded students can be generated using this selection page.

3.1.1.6.3. Re-Roster

The Re-Roster page allows teachers to assign new students to their classrooms and generate roster reports to view results of the revised student population groupings. This report requires each school to upload a file with their teachers' schedules in order to assign the students to their new classes. After the students have been assigned, users may view the Re-Roster reports under the Select Report selection. This report is only available to users with a school or grade level account.

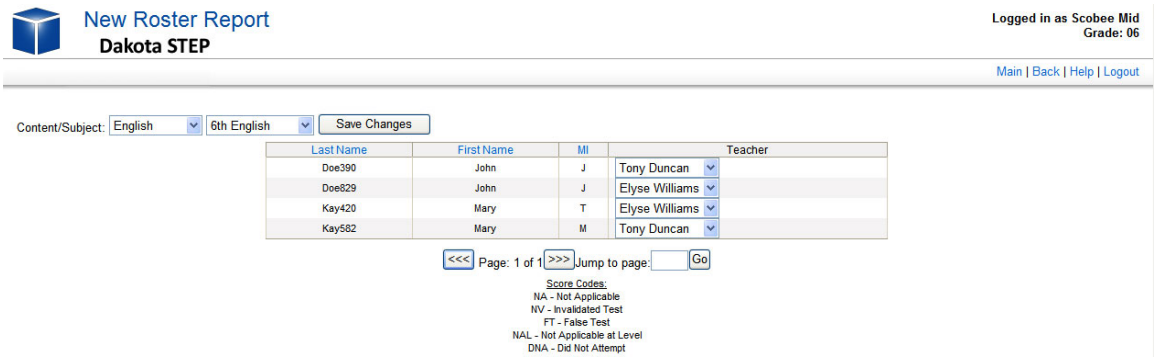

Exhibit 8: Sample of assigning students to teachers

3.1.1.6.4. Manage Teacher List

To re-roster the students at the classroom level, a file containing teacher schedules must be uploaded. To manage and upload a teacher list, select New Roster Report from the list of reports; choose the Dakota STEP Administration year and grade, and then click Continue. At the next prompt, choose Manage Teacher List from the navigation bar at the top right corner of the page.

When the Upload New button is selected, three fields appear along with a File Upload prompt.

1. Teacher Name: type the heading that was used to label the teacher names column in the file to be uploaded
2. Content: type the name that was used to label the subjects column in the file to be uploaded.
3. Subject: type the name that was used to label the courses taught column in the file to be uploaded.

To upload the file, click on the Browse button, locate the file on your computer, select the file and click on the Upload button.

The status of the uploaded file will be displayed on the screen. If there was a problem with the file, check to make sure that the file was created based on the layout format provided above. If the file uploaded without error, the system redirects users to the View Teacher List page.

3.1.1.6.5. Editing the Teacher List

The teacher list file can only be uploaded once. Changes can be applied to the teacher list on the View Teacher List interface. To edit the teacher list, simply click on the Manage Teacher List link located on the navigation bar at the top of the New Roster Report Selections page.

When prompted, select Load Existing File. After the file has loaded, the user has many options for editing.

To edit one record at a time, click on the Edit link corresponding with the row to revise. This will redirect the user to a screen with editable teacher information fields. Once the edits have been completed, click the Commit Changes button to save the edits. If the user made a mistake and does not wish to change the record, click on the Cancel button.

To delete a teacher record, click on the Delete link corresponding with the row to be removed. The user will then be prompted, “Are you sure you want to delete this record?” with an accompanying “Yes / No” option to confirm their decision.

To add a record, select the Add Row button at the bottom of the page. This will create an editable row in which the user may add records one at a time.

After completing any of these edit, delete or add tasks, users may still elect to undo their work by simply clicking the Undo All Changes button at the bottom of the screen.

Once all changes to the teacher list are complete, select the Commit Data button to save the changes. After the data has been saved, the system will automatically redirect the user to the New Roster Report Selections page.

3.1.1.6.6. How to Re-Roster Students

Once the teacher schedules have been loaded into the system, users may begin re-rostering the students into specific classes.

At the top left hand side of the Re-Roster report page, there are two drop down boxes labeled Content and Subject where users make the specific student placement selections.
Under Content, users select their subject area: English, History, Mathematics, Science, etc. Under Subject, users select the particular course in which the student will be placed: 7th English, Creative Writing, Reading, etc. The selections in the drop down boxes are generated from the teacher schedule file that was previously uploaded. These selections filter the list of teachers in the drop down list next to each student's name.

Using the drop down box corresponding to each student name, users may assign students to specific teachers and sections. Users may also move between pages or jump to a particular page by using the paging arrows at the bottom of the re-roster interface.

After all students have been assigned, click on the Save button to save the re-rostered student selections.

Users may then view these students by returning to the New Roster Report. To access the New Roster report from the re-roster interface, click on the Main link on the navigation bar.

3.1.1.6.7. Viewing the Re-Roster

Once the teacher file has been uploaded successfully and the students have been re-rostered, select New Roster Report from the Main Selections page to view the re-roster results. On the New Roster Report Selection page, users may select the scores, subgroups, additional fields, demographic inclusions and class as well as apply the search criteria.

Users may select one or more classes directly on the selection page of the New Roster report. Users must select one or more class to view the teacher names as an additional field on the New Roster report. The report will then display the teacher name and section assigned to each student.

When users create custom reports by selecting specific classes or applying various search criteria, it is a good idea to save the reports as queries to avoid repeating these selection steps each time users wish to view the results of that data combination/filter.

On the New Roster report, summaries by teacher can be generated using the drop down menus found by clicking on the column header for teacher names.

3.1.2. Select Year

Before proceeding from the main selections page, users must select the year(s) of data inclusion to be displayed on the report.

- For the Roster report, only one year may be selected at a time
- The Group Summaries: Scale Scores and Performance Levels, Group Summaries: Scale Scores and Performance Levels, and the Performance level summary chart allow multiple years to be displayed at a time

3.1.3. Select Grade

Users must select the grade level of data they wish to see displayed on the report before the report can be generated. Only one grade may be selected at a time. This selection is made on the main selections page.

3.1.4. Select District/School(s)

In addition to selecting the year and grade, users must also select the desired aggregation level for the report. Users may select to view results at the state, district, or school level.

- For the Roster report, users may only select a single district or school(s)
- For the Group Summaries: Scale Scores and Performance Levels, Group Summaries: Standards/Indicators, and the Performance level Summary chart, users may select any combination of state, district and school level results
    - The Performance level Summary chart allows a maximum of 10 district/school(s) to be selected at one time.

3.2. Report Selections

After selecting the report type on the Main page, users will progress to the Report Selections screen to choose which score, group summary, student characteristics, demographic variables, and search criteria to display on the report.

3.2.1. Select Scores

Within the Select Scores section of the report selections page, users can choose the specific scores and statistics that will be displayed for each subject area of their report. To include all available scores and statistics for any subject area, users can simply click on the Select All link next to the subject heading. In the event users make inadvertent selections, they may simply erase the selections within a content area by clicking the Reset link and begin again.

3.2.2. Select By Group Summaries

To narrow the focus of the report and scrutinize the performance of specific types of students, users may select any combination of a variety of subgroups from the Select By Group Summaries for the Summary portion of the menu. For example, to see the summary results by male and female, simply select “Gender” under the Select Subgroups for Summary. The report will then display the average performance results of male students compared to the results of female students.

3.2.3. Select Student Characteristics to Be Displayed

Although similar to the 'By Group Summaries' selection, Student Characteristics to be Displayed allows the user to select characteristics that pertain to individual students rather than a summarized group of students. This selection resides only in the Roster report and New Roster report.

3.2.4. Select Students By Demographics

The Select Students by Demographics function is available for all of the reports as a filtering tool that allows users to include or exclude students by demographic characteristics. A logical relationship drop down menu is also provided for exclusivity. For instance, to view students who are female and white, users would select the check boxes of "Female" under Gender, and "White" under Ethnicity as well as the logical relation "and" in the drop down relational menu. The report will then display scores for white female students. Alternatively, using the logical relationship "or" would result in scores for all female students as well as for all white students, independent of one another. To exclude white females from the report, select all check boxes except Female and White under Gender and Ethnicity with the logical relationship "or." If nothing is checked under Select Demographics, the default will be all students.

3.2.5. Select Performance Levels

Available only on the Performance level Summary chart, the Performance Level selection allows users to view students scoring in any combination of Performance Levels. For the Dakota STEP, the Performance Levels are Below Basic, Basic, Proficient and Advanced. To see the score ranges for each Performance Level, please refer to 4.3.

3.2.6. Select Graph

On the Performance level Summary chart, users are given the additional option to view the report as a bar chart or a histogram. This allows users to display the data in the format that best conveys the impact of the results to their audience.

3.2.7. Select Search Criteria

For the Roster and New Report, users may take advantage of the select search criteria to filter the data in a search for students earning a specific content score or achieving a particular performance level. After selecting one of the search options, a blank will appear for the user to type the letter(s) or number(s) for the system to search for. To initiate the search, users must click "Apply." The resultant report will then display all cases matching the user-entered search criteria.

To display all students achieving a particular Performance Level, users can simply select the Performance Level option by content, check which levels to be displayed on the report, and then click "Apply."

Similarly, users may also search the specific score fields for scores that are "at most", "equal to" or "at least" the score which the user types into the field. Again, the user must click "Apply" to initiate the search.

To remove any search criteria, the user must click “Remove” next to the saved search criteria.

4. Viewing and Analyzing Your Reports

In addition to selecting, summarizing and viewing the data, Dakota STEP Data Interaction provides additional functionality to help users get the most out of their data. This section details how to access the score interpretations and report functions that will maximize users’ analysis of the data.

4.1. Report Functions

The report functions described below enable users to extract verifiable meaning from the assessment data and focus attention on specific elements.

4.1.1. Sorting

The reports generated on the Dakota STEP Data Interaction System include bi-directional sorting (ascending, descending) by clicking on the corresponding column header and choosing the sort option.

4.1.2. Calculate N

Available only on the Group Summaries: Scale Scores and Performance Levels report, the Calculate N feature allows users to obtain count values from percentages that are reported for various data elements. This type of information may reveal that an occurrence is more of an anomaly requiring focused attention than an actual trend. For example, when a report shows that 80% of the selected population performed at the Below Basic level, users can click on the Calculate N option to see that this percentage represents a subgroup population of only five students statewide with four of them performing Below Basic.

The user may hide the n-counts by clicking on the column header and selecting “Hide N.”

4.1.3. Hide This Content Area

Available only on the Group Summaries: Scale Scores and Performance Levels report and Group Summaries: Standards/Indicators, the Hide This Content Area feature allow users to view their subject results of interest by hiding unwanted subject areas.

The user may hide the content area by clicking on the column header and selecting “Hide this Content Area.”

4.1.4. Calculate Percentages

Available only on the Group Summaries: Standards/Indicators report, the Calculate Percentages feature allows users to obtain the maximum score, minimum score, and the percent of students for a particular score variable.

The user may hide the percentages by clicking on the column header and selecting “Hide Percentages.”

4.1.5. Drill to Roster

For the Group Summaries: Scale Scores and Performance Levels, Group Summaries: Standards/Indicators, and the Performance level Summary chart reports, the Drill to Roster feature allows users to quickly navigate from summary level data directly to a specific population selected by the user. Users may access this feature from either the table or graphical form of the summary report. From the reporting tables, the user can click on the row header and select Drill to Roster to see a listing of individual student results. From the chart reports, the user may simply click on the section of the graph that they would like to identify.

4.1.6. Drill to Individual Student

From the Roster report, users may click on the name of a student to obtain that student's individual report which includes a narrative description and diagnosis of the student's performance. To produce a batch report of individual student scores, the user can select "transpose" from the navigation bar.

4.1.7. Summarize

The Summarize feature is only available on the Roster report. This feature allows users to quickly obtain a summary of the student population by clicking on the column header and selecting "Summarize" on the data element selected. Data elements shown on the summary include Total N, Valid N, Mean, Standard Deviation, Minimum and Maximum.

Users can obtain selective summary statistics based on variables such as gender, ethnicity, LEP and IEP by clicking on the column header and choosing the "Summarize" option.

4.1.8. Distribute

The Distribute feature allows users to obtain the frequency distribution of a specific score variable within the student population by simply clicking on the column header. Helpful statistics such as cumulative frequency and percentages are also shown on the distribution report. Examining the frequency distribution of specific score variables such as scaled score can reveal helpful information including how many students received the maximum score possible.

By clicking on the column header Scale Score users can access the Distribute feature that generates a frequency distribution by variables such as gender, ethnicity, LEP and IEP when users click on the corresponding selection.

4.1.9. Plot Against

The Plot Against feature is only available on the Individual Performance report. The Plot Against feature allows users to plot two score variables against each other by clicking on the column header and making the selections. From the scatter plot, users will have the ability to

- Zoom In/Out
- View N-count and Correlation
- View Regression Lines and 95% Prediction Bands
- Drill to Roster

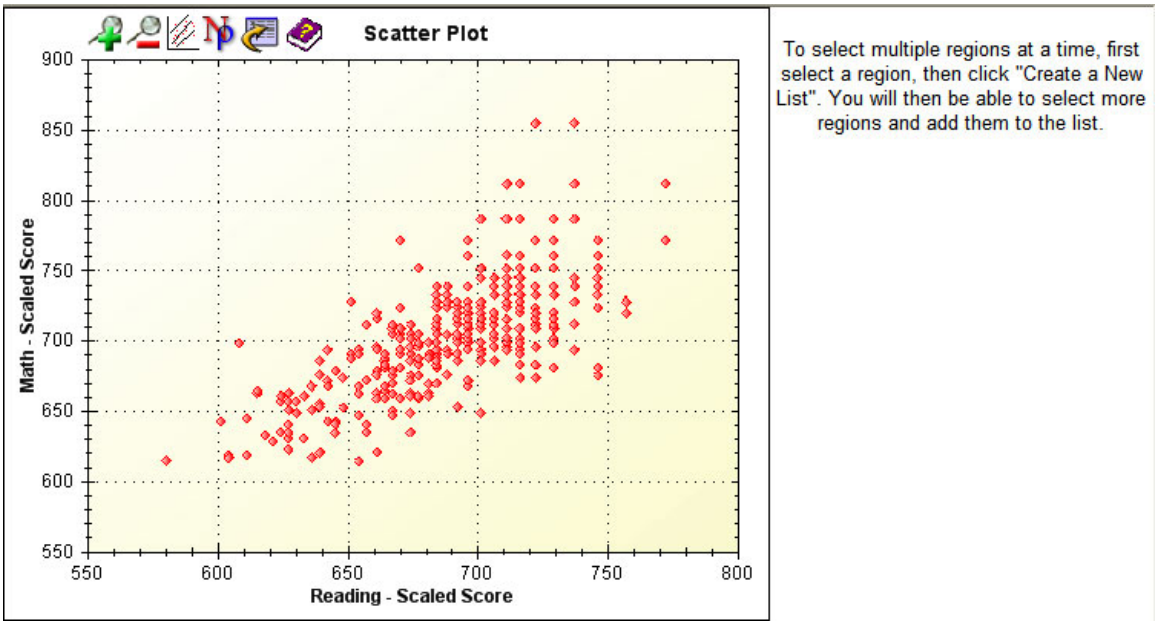

Exhibit 9: Sample Scatterplot

4.1.9.1. How To Plot Two Variables

For example, a user may choose to plot the reading scaled score against the math scaled score. The user would click on the column header belonging to reading scaled score and select plot against. The user would then continue by selecting Mathematics and choosing Scaled Score from the drop down menus.

4.1.9.2. Plot Against Functionalities

4.1.9.2.1. Selecting a Portion of the Scatter Plot

To select a portion of the scatter plot, the user must click on a portion of the graph and release the mouse button. Then the user should drag the box image to surround the portion of the graph that they wish to focus on. Then the user should click the button on the mouse again. A blue box will appear on the graph of the scatter plot.

4.1.9.2.2. Zoom In/Out

The user may choose to zoom in on a specific portion of the scatter plot. The user must draw a box around the portion of the box which he/she would like to enlarge. After the box has been drawn, the user should select the  button located at the top left of the graph.

If the user would like to zoom back out, he/she should select the  button located at the top left of the graph.

4.1.9.2.3. Calculate N and Correlation

The user can view the n-count of the students represented on the graph along with the correlation between the scores by selecting the icon located in the top left corner of the graph.

The N-count and correlations can be viewed at the top right corner of the graph.
Below is an example of a scatter plot with the n-count and correlation displayed. The statistics are circled in red at the top right hand corner of the graph.

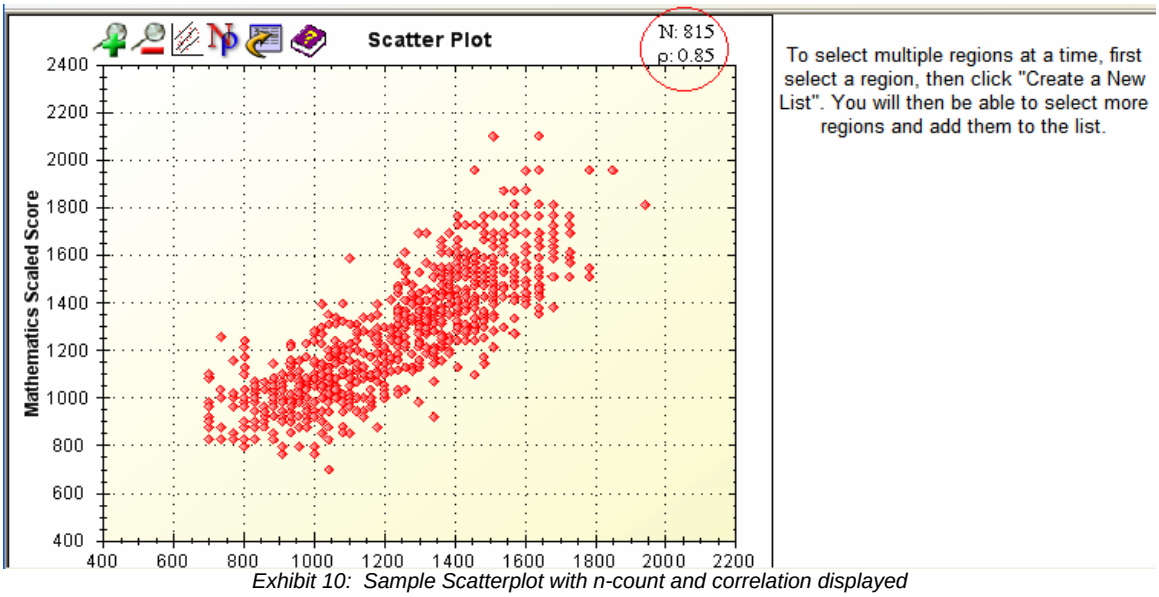

Exhibit 10: Sample Scatterplot with n-count and correlation displayed

4.1.9.2.4. View Regression Lines and 95% Prediction Bands

Users can view the regression line and the 95% prediction bands by clicking on the icon located in the top left portion of the graph. The prediction bands will help identify outliers on the graph.

Below is an example of a scatter plot with the regression line and the prediction bands.

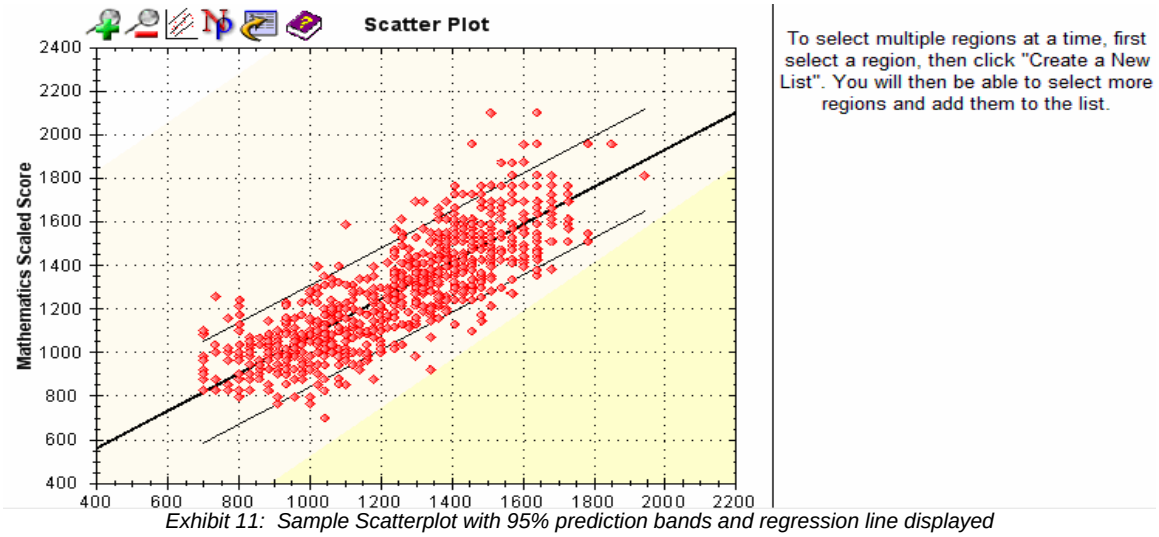

Exhibit 11: Sample Scatterplot with 95% prediction bands and regression line displayed

4.1.9.2.5. Drill To Roster From the Scatter Plot

The user may choose to drill to a roster report of the entire graph by simply clicking on the  icon located in the top left half of the graph.

The user may also drill to a roster report of a selected subset of the scatter plot. To do this, the user should draw a box around the portion of the graph that is of interest. Then click on the Create List link located to the right of the graph. If the user chooses to add another portion of the graph to the list, he/she should draw another box on the graph and select the Add Entry link located to the right of the graph. This can be repeated as many times as the user would like.

The user may view all of the portions of the graph that have been selected by clicking on the Show All Entries link located to the right of the graph. This option will display all of the boxes that have been drawn.

To generate a roster report of the selected portion of the graph the user should select the View Roster for List link located to the right of the graph.

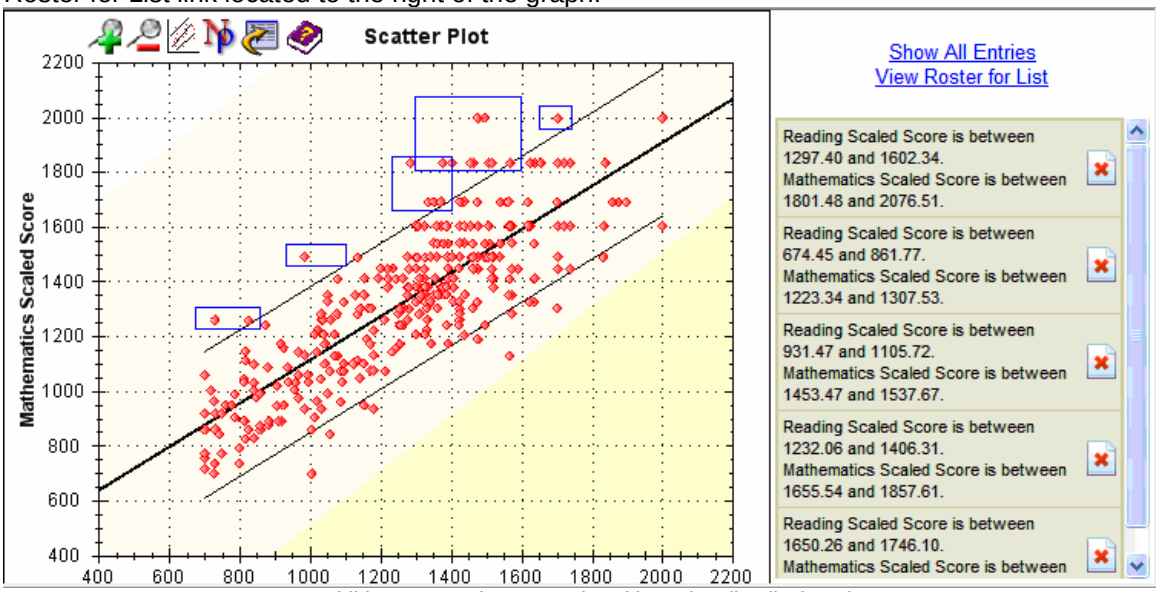

Exhibit 12: Sample Scatterplot with student list displayed

4.1.10. Paging

Reports generated on the Dakota STEP Data Interaction System usually involve large amounts of data which would be too cumbersome to display on a single screen. Users can navigate between pages by clicking on the appropriate page navigation buttons, jump to a specific page number and select how many records to display per page.

- Move between pages: click on the appropriate page navigation button at the bottom of the display (<< or >>)
- Jump to a specific page: type the desired page number into the “Jump to Page” text box and click the “Go” button

- Select the number of records to display: per report page on the report selection page. Near the bottom of the screen next to the “Get Report” button is a “Students per Page” text box. Type the number of students to be displayed on each page and select “Get Report.” The default is 20 records per page.

4.1.11. Get Text

Data Interaction allows every tabular report to be exported to a CSV file for further analysis. If the user prefers to only view a CSV file, simply select “Get Text” instead of “Get Report” on the report selections page. If the user has already created an HTML report, select the “Get Text” link on the report page menu bar to instantly convert the HTML report to CSV format. After clicking on “Get Text”, the user then has the option of saving the CSV report to the computer or opening the file in Excel.

4.2. Score Interpretations

4.2.1. Roster Score Interpretations

- Scaled Score—a standard score derived from the Number Correct (Raw Score) that indicates performance on all forms and levels of a given test along a single comparable scale. It facilitates conversions to other score types and the study of changes in performance
- Raw Score—a score that reports the number of points a student earned on each test item, standards/indicators, or subtest. Students earn one raw score point for each correctly answered multiple-choice item. Raw scores are reported as content sub-scores
- Total N—total number of students at school, district, or state level
- Valid N—number of students on which school, district, or state results are based at each aggregate level
- Mean—the average of the individual score values
- S.D.—measure of the variability in a group of scores
- Minimum—the minimum of the individual raw and scaled scores values
- Maximum—the maximum of the individual raw and scaled scores values

4.2.2. Performance Level Interpretations

- Below Basic—a student performing below the basic level performs below expectations for that grade level. The student performs few of the content standards for the grade below the level of difficulty, complexity, or fluency specified by the grade level standards
- Basic—a student performing at the basic level performs below expectations for that grade level. The student is able to perform some of the content standards for the grade below the level of difficulty, complexity, or fluency specified by the grade level standards
- Proficient—a student performing at the proficient level meets expectations for that grade level. The student is able to perform some of the content standards for the grade below the level of difficulty, complexity, or fluency specified by the grade level standards
- Advanced—a student performing at the advanced level performs above expectations for that grade level. The student is able to perform the content standards at a high level of difficulty, complexity, or fluency

4.2.3. Summary Score Interpretations

- Number Tested—number of students tested at the school, district, or state level
- Mean Scaled Score—the average of Scaled Scores earned by a group taking a given subtest or domain total

- % in Each Performance Level—the percentage of students at each of the four Performance Levels: Below Basic, Basic, Proficient, and Advanced

4.3. Raw and Scaled Score Cut Points and Performance Levels

For a complete list of score ranges and cut points see the Performance Standards Cut Ranges in the Help Menu inside the application, or visit http://doe.sd.gov/octa/assessment/dakSTEP/index.asp.

4.4. Printing Reports

Data Interaction has pre-formatted each of the many different reports for convenient printing. Please follow the instructions detailed below for printing your reports. These instructions may also be accessed directly by selecting "Printing Tips" from the Help menu.

4.4.1. HTML

For best printing results

1. Set your page margins to their minimum values or print in landscape mode:
    - Click File.
    - Click Page Setup...
    - On the bottom-right section of the dialog, you will see Margins.
    - Set the margins to their minimum values by changing the number in each box to 0. (As you do this, the 0 will change to the minimum value.)
    - Note: When you are finished printing, you may want to change the margins to their default values of 0.75 inches.
    - Alternatively, you may change the Orientation to Landscape.
2. Print background colors and images:
    - Click Tools.
    - Click Internet Options...
    - Switch to the Advanced tab.
    - Scroll down until you see Printing.
    - Make sure Print background colors and images are checked.
3. Print frames as they are laid out on the screen:
    - When you are ready to print, click File.
    - Click Print...
    - Switch to the Options tab.
    - Select the radio button as laid out on screen.
    - Click Print.
    - You will need to repeat this step every time you print.

Additional suggestions to ensure a professional appearance for all reports:

- When running Roster reports, make sure to adjust the Students per Page number at the bottom of the page. This will allow users to print fewer pages if the number is increased.
- When running reports, limit the amount of content areas to one. For math you may also need to limit the number of scores selected.
- When printing, reduce the margin size and use landscape view.

5. Control Panel

Through the Control Panel options, administrative users can create user accounts, reset passwords, deactivate user accounts, delete user accounts, view user accounts and view user activity. The link to the Control Panel is located on the navigation bar of the main page above the report selection list. Users without administrative privileges will not see the Control Panel link.

5.1. Add User Accounts

On the main page of the Control Panel, administrative users can add new user accounts by clicking on the Add User Account link. Data Interaction will prompt the administrative user to specify the account type and to select a username and password for the new user account. Once the correct information has been entered and the user selects

5.2. View User Accounts

The administrative user may view all of the active and inactive user accounts by clicking on the View User Accounts link on the main page of the Control Panel. Here the administrator can centrally view and manage all of the user accounts from a single screen. The View Accounts feature also allows the administrator to restrict the display to users of a particular type, or to view all users simultaneously.

5.3. View User Activity

In addition to viewing a listing and status of each user account, Data Interaction also enables the administrator to review the recent activity of all the user accounts within the administrator's respective school/district. To view user activity, the administrator simply clicks on the View User Activity link from the main page of the Control Panel. This feature allows the administrator to monitor which users may not have completed their review of the data. Specific details displayed include time stamp, IP address, username and module visited.

5.4. User Activity Summary

In addition to viewing a listing and status of each user account, Data Interaction also enables the state to review the recent activity of all the user accounts. To view user activity, the state simply clicks on the User Activity Summary link from the main page of the Control Panel. This feature allows the state to monitor which users may not have completed their review of the data. Specific details displayed include time stamp, IP address, username and module visited.

6. Navigation Bar

The navigation bar is located on the strip across the top of the page in the upper right section of all of the application pages. The navigation bar includes the primary system commands as detailed below.

6.1. Main

The “Main” link found on the navigation bar returns the user to the initial selection page. From the initial selection page, the user may select which report, grade level, year of administration and aggregation level (state/district/school) to view.

6.2. Back

Just like the back button on internet navigation toolbars, the “Back” link found on the Data Interaction navigation bar will direct the user to the previous page viewed.

6.3. Saved Queries

Each saved query can be found by clicking the “Saved Queries” link on the navigation bar. From the saved queries screen, the user selects the folder that the report was saved in and the name of the report. The user then has three options: Load the Query, Load Query as Text, or Delete Query.

- Load Query: creates an HTML report of the saved query
- Load Query as Text: exports the saved queries directly to a CSV file without having to load the actual report
- Delete Query: permanently deletes the selected query

6.4. Save Query

Each report generated by Dakota STEP Data Interaction can be saved for future use without having to reset parameter selections. Users can create unlimited queries to meet their unique personal needs.
After a report has been created, the user must click on the “Save Query” link on the navigation bar, and then select the location/folder in which to save the report, name the report and click “Save.” To retrieve this saved query, click on the “Saved Queries” link on the navigation bar.

6.5. Help

The Dakota STEP Data Interaction system provides a detailed help menu directly within the application. Users may access this menu by clicking the “Help” link on the navigation bar.

6.6. Logout

Once the user has completed their session with Dakota STEP Data Interaction, the user may simply select the “Logout” link on the navigation bar. This will formally log the user out of the Dakota STEP Data Interaction system and ensure that no unauthorized users access the system through that user’s account. Upon logout, the user will have the option of returning to the login page, leaving user feedback or closing the browser window.